





### **Larsen & Toubro**

L&T Shipbuilding is part of the reputed Larsen & Toubro conglomerate, which:

- Is a technology, engineering, manufacturing and construction major, with global operations.
- Is one of India's most respected companies
- Has a strong, customer-focused approach and a constant quest for top-class quality
- Has sustained leadership in its major lines of business over seven decades
- Is globally acknowledged as one of the top five manufacturing companies in its field
- Has an overseas manufacturing footprint, with facilities in the Middle East, South-East Asia and Australia

- Has comprehensive capabilities covering design, engineering, heavy fabrication and project management
- Is committed to community welfare and environment protection

### **L&T's Business Verticals**

- Shipbuilding
- Heavy Engineering
- Hydrocarbon
- Construction
- Power
- Electrical & Automation
- Machinery & Industrial Products
- Information Technology
- Financial Services
- Railway Projects

### **Achievement Record**













## **Signature of Excellence**

- Played a critical role in building India's first nuclear powered submarine
- Successfully executed complex Hydrocarbon projects in India, the Middle East and South East Asia.
- Built coal and gas-based power projects in India, the Gulf and Sri Lanka
- Manufactured the world's largest coal gasifier and exported to China
- Fabricated the world's largest FCC regenerator for a refinery
- Constructed Asia's highest viaduct
- Built the world's longest limestone conveyor

### **L&T Shipbuilding**

L&T Shipbuilding owns and operates two modern shipyards, one on the west coast of India at Hazira, near the city of Surat in Gujarat and the other on the east coast at Kattupalli near Chennai, capital of the state of Tamilnadu.

The corporate headquarters of L&T Shipbuilding is located in Chennai.

Both shipyards undertake new construction of commercial and defense vessels and repairs.

In addition, Kattupalli shipyard has special facilities for undertaking reparirs, refits and conversions of both commercial & defence vessels and offshore platforms.



# Kattupalli Shipyard

The mega shipyard is located at Kattupalli, about 40 kms north of Chennai.

The shipyard complex also includes a Container Port and an Offshore Modular Fabrication Yard.

Area: 1225 acres (500

hectares)

Waterfront: 2.2 km

Depth: 10 m at berths

Channel depth: 16 m





# **State-of-the-Art Infrastructure**

### Shops

- Plate straightening and pre treatment shops
- Cutting shop with CNC Plasma cutting
- Bending shop for profiles / 3-D plate bending
- Pipe Shop with CNC bending machines
- Dedicated engineering and hull repair shops with requisite machinery

### Services

- Uninterrupted power supply with stand-by captive power generation
- Shore cooling water system
- Warehouse including air-conditioned room for electronic equipment
- Quick handling of materials
- Dry berths and ship transfer system for quick turnaround

## **Training**

- In-house welder qualification and process qualification
- Simultaneous training of 100 workmen
- Focus on multi-skilled workforce
- Customised training modules for trade specialisations

### **Design Support**

- Well-experienced design force to cater for all types of design requirements for refits and conversions in-house
- Use of modern digital design tools and 3-D modeling softwares

### Quality

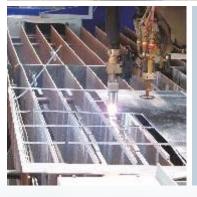
 Systems and processes conforming to international quality and safety standards

### **Health, Safety & Environment**

- Well equipped medical center
- Focus on international safety standards
- Environment conservation with STP and effluent treatment











# **Ship Repairs Portfolio**

### **Hull Repairs**

- Ultrasonic thickness gauging
- Complete hull survey including underwater survey in afloat condition
- Repair of steel, aluminum and specialised materials such as stainless steel, duplex steel etc.
- Hull repairs including bulbous bow, 3-D curves, etc. with HT materials
- Specialised welding such as SAW, Pulse GMAW and Semiautomatic carriage trolleys

### **Hull Outfit**

- Hull outfit repairs and refurbishment
- Survey of anchors and chain cables
- Accommodation repairs and modular installations
- ICCP / Sacrificial anode renewals
- Servicing of fire-fighting and life saving apparatus









# Hull Preservation and Coatings

- Hull preservation and tank coatings (grit / copper slag blasting)
- High pressure wash (3000 psi) and fresh water cleaning of tanks
- Hydro blasting with fresh water up to 40,000 psi
- Complete paint renewal of internal areas including DB tanks
- Specialized coatings such as lead-free anti-fouling and GRP coatings of water jet tunnels, sea chests, etc...
- Coating of propellers for speed enhancements













### **Machinery Repairs**

- Overhauling of main engines, auxiliary engines and pumps
- Propeller refurbishing, balancing and polishing
- Rudder bush renewal, propulsion shaft withdrawal, bow thruster repairs, coupling replacement
- Air-conditioning & refrigeration systems servicing & repairs
- Repairs of deck machinery such as capstans and davits
- Servicing and testing of boilers & accessories

### **System Piping Repairs**

- Servicing of sea valves, strainers and coolers / heat exchangers
- All piping jobs including SS, Cu-Ni and titanium pipes
- Templating and bending of pipes including 3-D
- Ventilation trunking and insulation renewals





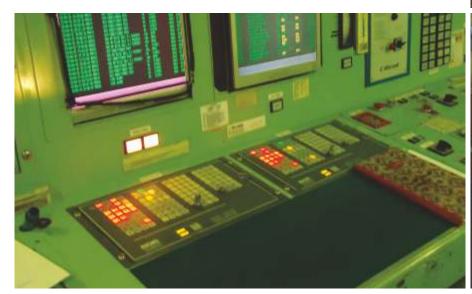


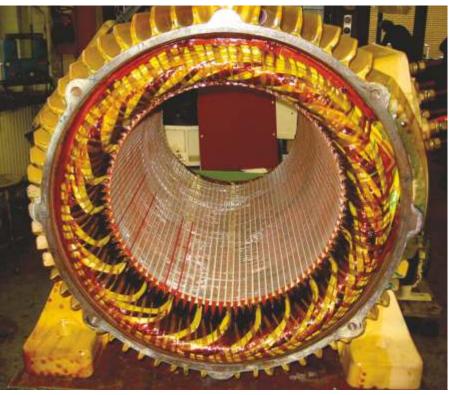
### **Electrical Systems**

- Servicing & repair of electrical systems & equipment
- Rewinding of motors and generators
- Electrical load testing
- Insulation improvements
- All types of cabling including conduits, cable tray and cable gland renewals
- Servicing of distribution boards and panels

### **Control/Navigation & Communication Systems**

- Servicing & repair of control & weapon systems
- Servicing of all navigational and communication equipment
- Servicing of machinery control systems
- Calibration of all electronic sensors and instrumentation systems







# Housing, Amenities & Recreation Facilities

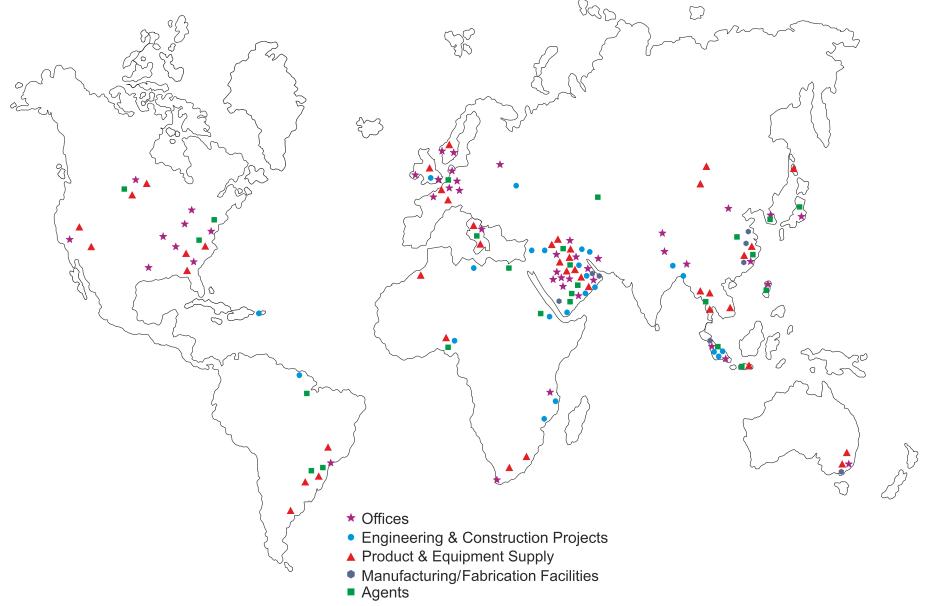
- Conveniently located adjoining the shipyard
- Separate accommodation for officers and crew
- Health club and gymnasium
- Recreation centre
- Sports complex
- Regular transport to Chennai city available





Larsen & Toubro

A Global Presence



Note: Map is broadly representative of L&T's presence in markets worldwide. For details of establishments within India, please refer to 'Nationwide Network'.





#### Corporate Office

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#### Shipyard

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